

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

In the Matter of)
)
Amendment of the Commission's)
Rules Regarding the 37.0-38.6 GHz and)
)
Implementation of Section 309(j) of the)
Communications Act -- Competitive)
Bidding, 37.0-38.6 GHz and 38.6-40.0 GHz)

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ET Docket No. 95-183
RM-8533

PP Docket No. 93-253

COMMENTS OF THE PERSONAL COMMUNICATIONS INDUSTRY ASSOCIATION

The Personal Communications Industry Association ("PCIA") herewith submits its comments in response to the above-captioned Notice of Proposed Rulemaking ("*Notice*").¹ Partially due to speculative activity in the 39 GHz band, the *Notice* proposes rule changes and allocations necessary to ensure the availability of adequate short-haul facilities for broadband personal communications services ("PCS") and other commercial mobile radio services ("CMRS") and private mobile radio services ("PMRS"). PCIA commends the Commission for its efforts to address the availability of backhaul spectrum, which will assist carriers in the rapid efficient roll-out of needed wireless services for the public. While PCIA concurs with the technical framework for use of these bands set forth in the *Notice*, PCIA offers below a few suggested revisions to more directly address the needs of wireless carriers.

¹Amendment of the Commission's Rules Regarding the 37.0-38.6 GHz and 38.6-40.0 GHz Bands, ET Docket No. 95-183, RM-8553; Implementation of Section 309(j) of the Communications Act -- Competitive Bidding, 37.0-38.6 GHz and 38.6-40.0 GHz, PP Docket No. 93-253 (Dec. 15, 1995). The comment deadline in this proceeding was extended from January 16, 1996, to February 12, 1996, with reply comments due on February 27, 1996. See Order Extending Time, ET Docket No. 95-183, PP Docket No. 93-253 (Jan. 16, 1996).

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I. INTRODUCTION

With the completion of the PCS Block A and B auctions and the start of the PCS Block C auctions, the nation is on the verge of a revolution in wireless services. These new systems promise increased competition, greater diversity in providers and offerings, lower cost and higher quality capabilities, and a new era of mobility for consumers and businesses. PCIA's diverse membership, including Broadband PCS carriers and a wide variety of both CMRS and PMRS licensees, as well as many support industries, are at the forefront of this revolution.

One of the most critical issues facing new broadband PCS entrants, as well as existing providers seeking to expand their facilities, is the availability of adequate spectrum for backhaul of traffic from the cell sites to local switching centers. As recognized very early in the PCS allocation proceeding, 39 GHz microwave is well suited for such purposes because the characteristics of the band allow high speed communications over relatively short distances.² Moreover, the geographic licensing of 39 GHz facilities, as opposed to the traditional link-by-link authorization of fixed facilities in other bands, allows carriers to construct and coordinate development of backhaul facilities over entire service areas more quickly and more efficiently. Unfortunately, the 39 GHz band has attracted a wave of speculative filings. Thus, on the eve of broadband PCS roll-out, 39 GHz spectrum is largely unavailable in the major markets and even in many mid-sized markets.

PCIA accordingly commends the Commission for undertaking to reexamine its 39 GHz licensing policies. The benefits of new services for the American public should not be held hostage by unscrupulous applicants who seek to monopolize critical backhaul spectrum under

²See Petition for Rulemaking of American Personal Communications, GEN Docket No. 90-314 (filed May 3, 1991).

liberal grant policies. This speculation, if permitted to continue, will only drive up the cost of wireless services for the public and delay the availability of new offerings. Accordingly, PCIA supports revision of the 39 GHz rules and the allocation of additional spectrum at 37 GHz to ensure the availability of backhaul spectrum for new CMRS carriers.

PCIA also supports the Commission's goal of harmonizing the regulations governing the 37 GHz and 39 GHz bands. These bands are sufficiently proximate and fungible that unified regulations governing the assignment and use of these bands is warranted. Because there are no technical or other service characteristics of these allocations that require different rules, harmonization will ease administration of the bands for both the FCC and for carriers, saving both time and resources, and increasing the utility of the allocations.

II. THE 37 GHz ALLOCATION IS NEEDED TO PROVIDE BACKHAUL COMMUNICATIONS FOR PCS AND OTHER CMRS OFFERINGS

PCIA concurs with the Commission's proposal to allocate the 37.0-38.6 GHz band for fixed links in support of the internal communications needs of wireless carriers. To more directly address the availability of suitable backhaul links for new and existing services, PCIA supports the proposal to dedicate some of the newly allocated channels for broadband PCS carriers and other CMRS providers. PCIA also supports other Commission proposals necessary to ensure the suitability of such spectrum for CMRS backhaul, including limiting mobile use of the band, rejecting a proposal for space research operations in the band, maximizing the number of paired channels, utilizing Rand McNally Basic Trading Areas ("BTAs") as license regions, and making one channel available for link-by-link licensing. At

the same time, PCIA opposes the auctioning of intermediate backhaul links as both contrary to the Communications Act and public policy.

PCIA supports the Commission's tentative conclusion that "the 37 GHz band be made available for use in point-to-point operations, such as those providing broadband PCS and cellular infrastructure links."³ However, the *Notice* also solicits comment on whether the band should be made available for "a wider array of fixed services" on a co-primary or secondary basis, including point-to-multipoint systems, mobile operations, and space research.⁴ While PCIA has no objection to use of the band for point-to-multipoint operations, which have been integrated into point-to-point allocations in the past, mobile operations and space research should not be permitted in the 37 GHz band. Mobile operations, even at low power, can pose a threat to fixed systems since such users are nomadic and could attempt to transmit within the line-of-sight of a high gain fixed receiver. Moreover, space to Earth communications for government research could disrupt point-to-point communications because the power flux density limits proposed in the *Notice* are insufficient to ensure non-interference.⁵ As a result of excessive power flux density limits and the potential for low elevation angles from satellites, space transmissions in the band would cause wide swaths of the 37 GHz band to be unusable for terrestrial communications. PCIA accordingly urges the Commission to reject proposals for mobile or space research use of the 37 GHz band.

³*Notice* at ¶13.

⁴*Id.*

⁵*Id.* at ¶14 n.24.

Although the Commission tentatively concludes that the 37 GHz band should be channelized into 50 MHz segments, the *Notice* proposes two alternative channel plans for the band. The first plan would use 700 MHz channel separations and provide fourteen paired channels and four unpaired channels. The second plan would utilize 800 MHz separation -- or interleaved 200 or 400 MHz separation -- with the effect of "pairing up" the one-way channels in the first proposal and providing two additional two-way channel pairs. Because 800 MHz separation would maximize the number of paired channels available, PCIA urges the Commission to adopt a channel plan pairing all of the available 37 GHz spectrum.

For the most part, PCIA also supports use of BTAs for licensing 37 GHz spectrum. One of the principal benefits of this band is that the blanket licensing of point-to-point facilities over a geographic region facilitates rapid roll-out of new low cost services by minimizing time-consuming and expensive link-by-link coordination procedures and administrative overhead. The proposed procedures also track more closely the coordination procedures that must be undertaken in any event to deploy PCS and cellular base stations. That being said, however, PCIA urges the FCC to dedicate one of the 37 GHz channel pairs for link-by-link licensing to meet the backhaul and short hop communications needs of more local services, including private systems. As higher technology private systems are deployed, their needs for backhaul capacity will also grow and some efficient accommodation should be made for those users that do not require BTA coverage.

PCIA also urges the Commission to address the issue of CMRS backhaul availability directly by adopting its proposal to designate six channel pairs as PCS support spectrum and eight channel pairs for CMRS operations generally. As previously noted, this spectrum is particularly suited for advanced communications systems due to the high bandwidth, short hop

nature of the point-to-point links that can be deployed in the band. Currently, a multitude of new carriers are being authorized, each of which will require backhaul links to roll-out service to the public.⁶ Unless backhaul spectrum is made available to these carriers over geographic regions comparable to PCS license areas, the number of requests for backhaul capacity will rapidly swamp the Commission's processes. Reservation of some capacity in the 37 GHz band for PCS use will directly address this problem, allowing carriers to proceed with deployment plans assured of the availability of at least some economical, flexible backhaul facilities.

In this regard, PCIA opposes the *Notice's* tentative conclusion to auction intermediate backhaul links as legally infirm and manifestly contrary to the public interest. Intermediate links are dedicated for use by the carrier for its own internal communications purposes; *i.e.*, transmission of cell site traffic from remote base stations to switching centers. Under Section 309(j)(2)(A) of the Communications Act, the Commission is permitted to utilize auctions only where the spectrum at issue enables subscribers to "receive communications signals" or to "transmit directly communications signals." Because the 37 GHz facilities to be used for backhaul are used only for internal communications, subscribers do not "receive" or "transmit directly" any signals in the 37 GHz band. Thus, such facilities constitute intermediate links that are not subject to auction authority by virtue of the governing statute itself.

Moreover, because 37 GHz links will be used solely for carriers' routing of traffic, the principal use of the spectrum does not involve the carrier receiving "compensation." Indeed,

⁶In this regard, PCIA does not believe that the proposal to require carriers to demonstrate need as a precondition of eligibility should be adopted, at least with respect to PCS and CMRS channels. *Id.* at ¶103. While need requirements are highly subjective and outdated in any event, the need for backhaul spectrum for CMRS service roll-out and continued build-out is patently evident, and enforcing a requirement to demonstrate need will unnecessarily consume administrative and applicant resources.

PCIA understands that the charges for PCS and other CMRS offerings does not and will not include any separable backhaul component; *i.e.*, a subscriber using a cell site that is linked with the switching center using landline facilities will pay exactly the same airtime fees as a subscriber using a cell site linked by 37 GHz facilities. Indeed, as a point of comparison, if landline facilities are used to interconnect some cell sites, the facilities are typically *private line* networks; the choice to route the same communications over radio facilities should not change the essential character of the communications. By analogy, while an overall CMRS system may be for profit, the specific use of 37 GHz facilities is no more "for profit" than the private microwave network of a gas utility, both of which are ultimately used in support of rendering a for profit service to consumers.

In any event, as the Commission found in the *Second Report and Order* in the Section 309(j) implementation proceeding, "auctioning of intermediate links might lead to significant delays in the provision of services[,] thus hindering the development and rapid deployment of new technologies, products and services for the benefit of the public."⁷ Moreover, the Commission also determined that "auctions [of intermediate links] would impose significant administrative costs on licensees and on the Commission."⁸ Given that PCS applicants have already spent or bid over \$13 billion on securing licenses for their offerings to the public, the imposition of additional costs for necessary ancillary facilities will only increase the cost of service to the public and delay the implementation of service.

⁷*Competitive Bidding*, 9 FCC Rcd 2348, 2366-67 (1994).

⁸*Id.*

Because auctioning of intermediate links is contrary to the governing legislation and broader public interest policies, PCIA believes a set-aside of channels for PCS and other CMRS carriers is necessary. Unless spectrum for backhaul uses is specifically designated, there will be no way to differentiate applications that are and are not subject to auctions. PCIA accordingly urges the Commission to adopt its proposal to reserve channel pairs for PCS and other CMRS carriers and to license those channels without auction procedures.

III. PCIA SUPPORTS THE PROPOSED REVISIONS TO THE 39 GHz LICENSING RULES AND POLICIES WITH MINOR MODIFICATIONS

As previously noted, speculative activity in the 39 GHz band has significantly reduced the availability of spectrum for legitimate operators. Accordingly, PCIA supports the proposed revisions to the 39 GHz licensing rules and policies. However, PCIA has provided below its comments on build-out alternatives proposed in the *Notice* and one minor revision to the *Notice*'s proposal to avoid imposing unnecessary administrative burdens on carriers.

The *Notice* solicits comment on two alternative build-out requirements to be imposed on licensees operating in the 39 GHz band.⁹ Both proposals would require a certain number of fixed links to be constructed and operational by the end of an 18 month construction period. However, one proposal keys the number of facilities required to the size of the market.

PCIA believes that the build-out requirement should be different depending upon the size of the market at issue, and supports the proposal to require construction of 15 links in the top 10 markets, 10 links in markets 11-25, and 5 links in all other markets. Indexing the build out benchmarks to the size of the market is consistent with other Commission requirements

⁹*Notice* at ¶107.

(*e.g.*, the percentage population threshold for broadband PCS) and is more rationally linked to the needs of the carrier and the public in the market.

In addition, the Commission has proposed to require, among other things, applicants for 39 GHz facilities to demonstrate that they have given detailed consideration to non-RF solutions and that they have an immediate need as a condition of eligibility.¹⁰ PCIA opposes a requirement to demonstrate the non-suitability of non-RF solutions because it does not believe the FCC should discourage the use of radio technologies. In any event, the requirement is highly subjective and categorically dismisses financial considerations, a factor that can be significant to the cost of services rendered to the public. PCIA also opposes the "immediate need" requirement. As previously noted, need demonstrations are antiquated, over broad regulatory tools that either unnecessarily consume administrative and applicant resources if enforced strictly, or are useless to prevent speculation if enforced less than strictly. PCIA urges the Commission to reject both of these proposals.

IV. COORDINATION WITH GOVERNMENT USERS SHOULD ALSO INVOLVE COMPLIANCE WITH INDUSTRY PROCEDURES

As a final matter, PCIA notes that the FCC is seeking comment on its proposal for link-by-link coordination of government and non-government use of the 37 GHz band.¹¹ Based on the FCC's projection that government use is anticipated to be low, PCIA believes the proposed coordination procedures are both feasible and unburdensome. However, government use of the band should be subject to the same industry prior coordination procedures and

¹⁰*Id.* at ¶111.

¹¹*Id.* at ¶120.

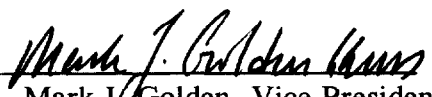
terrestrial interference objectives adopted as industry standards for non-government users. Obviously, the industry has no interest in creating difficult or burdensome procedures or restrictive interference criteria, and government compliance with such standards would not be onerous. At the same time, any such standards are the minimum necessary to ensure that critical public communications systems are not disrupted by interference and should be enforced evenly on all users of the band.

V. CONCLUSION

PCIA commends the Commission for its action to curtail speculation in the 39 GHz band and to ensure the availability of sufficient and suitable backhaul facilities for new wireless carriers. PCIA generally supports the Commission's proposed revisions to the 39 GHz rules as well as the proposed rules and policies for a new 37 GHz allocation. PCIA urges the Commission, however, to ensure that the goals of ensuring backhaul capacity are met by adopting the minor modifications to its proposal set forth herein.

Respectfully submitted,

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